

CLAIM AMENDMENTS

1. (Currently Amended) An elevator vibration reducing device comprising:
a vibration sensor for detecting horizontal vibration of a cage;
an actuator for displacing the cage horizontally; and
a control portion ~~having including~~ a computing portion for computing a vibration reduction control signal for reducing the horizontal vibration of the cage ~~from based on~~ a vibration detection signal ~~from generated by the~~ vibration sensor, and ~~adapted to control~~ controlling the actuator, wherein the control portion ~~has includes~~ a detection signal comparing portion for comparing a detection value obtained from the vibration detection signal with a previously set value, the control portion stopping ~~the control controlling~~ of the actuator when the detection value ~~has become equal to or larger becomes~~ not less than the set value.
2. (Currently Amended) ~~An~~ The elevator vibration reducing device according to Claim 1, wherein the control portion temporarily stops ~~the control controlling~~ of the actuator upon detection of an abnormality and counts ~~the~~ number of times that an abnormality has been detected, the control portion stopping ~~the~~ control of the actuator completely when the number of times ~~thus~~ counted has attained a previously set number of times.
3. (Currently Amended) An elevator vibration reducing device comprising:
a vibration sensor for detecting horizontal vibration of a cage;
an actuator for displacing the cage horizontally; and
a control portion ~~having including~~ a computing portion for computing a vibration reduction control signal for reducing the horizontal vibration of the cage ~~from based on~~ a vibration detection signal ~~from generated by the~~ vibration sensor, and ~~adapted to control~~ controlling the actuator; and
a power amplifier ~~provided~~ between the actuator and the control portion and ~~having~~ including an amplifier main body for amplifying the vibration reduction control signal, wherein
the control portion ~~is equipped with~~ ~~includes~~ current restricting means for restricting ~~a value of a~~ current output from the power amplifier to the actuator, and ~~wherein~~ the power amplifier ~~is equipped with~~ ~~includes~~ a current comparing portion which stops ~~an~~ output of the vibration reduction control signal to the actuator when the ~~value of the~~ current output from the power amplifier to the actuator is not smaller than a previously set value.
4. (Currently Amended) An elevator vibration reducing device comprising:
a vibration sensor for detecting horizontal vibration of a cage;
an actuator for displacing the cage horizontally; and

a control portion ~~having including~~ a computing portion for computing a vibration reduction control signal for reducing the horizontal vibration of the cage ~~from based on~~ vibration detection signals ~~from generated by the~~ vibration sensor, and ~~adapted to control controlling~~ the actuator, wherein

the control portion ~~has includes~~ a plurality of detection signal comparing portions for comparing detection values obtained from the vibration detection signals with ~~previously~~ set values, and a branching portion for assigning the vibration detection signals to the detection signal comparing portions corresponding to the respective frequencies ~~thereof of the detection signals~~, and

~~wherein~~ the set values in the detection signal comparing portions are different from each other according to ~~corresponding~~ frequency bands ~~corresponding thereto~~, the control portion stopping ~~the control controlling~~ of the actuator when the detection values ~~have become equal to or larger~~ ~~not larger~~ than the set values.

5. (Currently Amended) ~~An~~ The elevator vibration reducing device according to Claim 4, wherein the control portion temporarily stops ~~the control controlling~~ of the actuator upon detection of an abnormality and counts ~~the~~ number of times that an abnormality has been detected, the control portion stopping ~~the~~ control of the actuator completely when the number of times ~~thus~~ counted has attained a ~~previously~~ set number of times.

6. (Currently Amended) An elevator vibration reducing device comprising:
a plurality of vibration sensors for detecting vibrations of a cage in ~~the same a single~~ horizontal direction;

an actuator for displacing the cage horizontally; and

a control portion ~~having including~~ a computing portion for computing a vibration reduction control signal for reducing the horizontal vibrations of the cage ~~from based on~~ vibration detection signals ~~from generated by the~~ vibration sensors, and ~~adapted to control controlling~~ the actuator, wherein the control portion ~~has includes~~ a multiple sensor output comparing portion for ~~making detecting a failure judgment on of~~ the vibration sensors by comparing the vibration detection signals, the control portion stopping ~~the control controlling~~ of the actuator when the vibration sensors are ~~judged determined to be out of order have failed~~.

7. (Currently Amended) ~~An~~ The elevator vibration reducing device according to Claim 6, wherein the control portion temporarily stops ~~the control controlling~~ of the actuator upon detection of an abnormality and counts ~~the~~ number of times that an abnormality has been detected, the control portion stopping ~~the~~ control of the actuator completely when the number of times ~~thus~~ counted has attained a ~~previously~~ set number of times.

8. (Currently Amended) An elevator vibration reducing device comprising:
a vibration sensor for detecting horizontal vibration of a cage;
an actuator for displacing the cage horizontally;
a control portion ~~having~~ including a computing portion for computing a vibration reduction control signal for reducing the horizontal vibration of the cage ~~from~~ based on a vibration detection signal ~~from~~ generated by the vibration sensor, and ~~adapted to control~~ controlling the actuator; and
an inspecting portion ~~having~~ including an inspection signal generating portion for outputting an inspection signal to the control portion ~~so as~~ to drive the actuator when the cage is at rest, and an abnormality judging portion for ~~making~~ detecting an abnormality ~~judgment~~ by comparing a vibration detected by the vibration sensor when the inspection signal is output with a vibration ~~directly obtained~~ obtained directly from the inspection signal.